

## ARF013 Drinking Water Resilience

### Risk Status Progress Report June 2022

Prepared: 27/05/2022

#### Description of risk and impact

In accordance with our Risk Management Policy, adopted by Council August 2019, the “Drinking Water Resilience” risk was adopted at the 05/07/20 Council meeting as a top organisational risk. This risk was scored and prioritised using Council’s bespoke IDEATE methodology.

Council own and operate eight drinking water schemes supplied by 14 primary and supplementary sources and nine water treatment plants.

The primary source for Kaikohe, Kaitia, Opononi, Rawene, Kawakawa and Paihia are surface water takes from local rivers and streams. Kerikeri also relies heavily on surface water as its secondary source. For each of these surface water takes Council hold a consent issued by the Northland Regional Council. The consents have conditions relating to many things but most importantly:

- the volume of water FNDC is authorised to take, and
- the instantaneous residual flow we are required to leave in the environment.

Surface water takes are impacted by droughts. Droughts typically cover a large geographical area; not just a single catchment or community. Irrespective of the volume of water FNDC is consented to take, there is a 20 percent chance each year that we will not be authorised to take water from the surface water sources for a week or more.

Group / SLT	Risk level	Inherent Risk	Risk description	Because of	There is a chance that...	leading to...
Infrastructure and Asset Management	Organisational	35	Strategic	Lack of freshwater resilience - long-term trends in rainfall coupled with changing and increasing consumer demands	Current freshwater supply systems will continue to not meet demand both now and into the future	Critical impact on our communities i.e. lengthy water restrictions; no/interrupted supply; costly economic consequences (affordability); extensive Health & Safety impacts across the district; economic and reputational risk from a failure to supply adequate potable and fresh water; negative environmental impacts.

The “Drinking Water Resilience” risk has been analysed as both an organisational and a strategic risk. A score of 35 or greater is in the high-risk category.

To ensure clarity this risk excludes “Action for healthy waterways” new rules and regulations aimed to:

- stop further degradation of New Zealand's freshwater resources and improve water quality within 5 years
- reverse past damage and bring New Zealand's freshwater resources, waterways, and ecosystems to a healthy state within a generation.

## Existing Treatments

1. Professionally managed water source and networks.
2. Asset management planning to consider growth, expansion, development for each of our communities
3. Treated Water Supply Bylaw - this allows us to make water restrictions if and when needed.
4. Water Shortage Management Plan – this outlines the processes and provides guidance on how water restrictions can be implemented to manage demand.
5. Water Shortage Management Committee is established with internal technical specialists who monitor and make recommendations on water restrictions to GMIAM.
6. Drought Communication Plan.
7. Ability to enact a dedicated drought response team (as used in the 19/20 drought).

## High level treatment plan and progress up-date:

High level treatment plan:	Progress update:
Water Shortage Management Plan, Committee and Drought Communication Plan	Summer 21/22 is the first summer in many years that FNDC imposed no water restrictions. Reasonable summer rainfall, the leak detection programme and a new source at Opononi (Smoothys bore) all contributed to reducing the risk.
2021/2031 Long Term Plan.	A programme of work for water infrastructure has been adopted in the LTP and changes have been proposed for the Annual Plan 2022/2023. Planning commences in June for assessing community needs with a focus on the next three years for LTP 2024/2034.
Programme Darwin – to understand asset knowledge to refine investment planning.	The focus for this risk comes from the Asset Condition Assessment programme of work. This is progressing well with the three-year programme mapped out with many activities already started and procurement underway for others. Updated information is available each month in the IAM Business Report.
Crown 3-waters reform funding.	<p>The Funding Agreement and Delivery Plan included a portfolio of projects to be completed prior to June 2022 (originally March but extended by the DIA to June). Of the 18 projects, 13 will improve resilience. Progress on these is reported monthly in the IAM Business report and all funds are expected to be utilised.</p> <p>Key projects include:</p> <ul style="list-style-type: none"> <li>• Kaitaia new water source</li> <li>• Kaikohe new water source</li> <li>• Update water safety plans across the district</li> <li>• Network model upgrades</li> <li>• Enhanced water leak management</li> <li>• Enhanced water monitoring capability and data capture</li> </ul>

Water Safety Plans	<p>Jacobs NZ Ltd have completed the Draft Water Safety Plans (WSPs) for all 8 schemes.</p> <p>These are being reviewed and will be completed for submission to Taumata Arowai by 15 November 2022. The final WSPs and the implementation plan to support these is underway collaboratively with FNDC staff and Far North Waters. Some implementation activities have already commenced e.g continuous monitoring and WaterOutlook. The WSP Risk Registers and Improvement Plans will inform LTP workshops.</p> <p>Taumata Arowai have advised they will not be approving WSPs but will provide feedback if they have concerns.</p>
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### Where are the gaps? / what more could we be doing?

The June 2021 deep dive was a rapid immersion into our drinking water resilience risk. At the session Elected Members wanted to understand resilience in regard to changing conditions and operations, and how our thinking around resilience has matured. The Draft Water Safety Plans contain a risk register and improvement plan for each scheme. Consequently, this gives Council a new benchmark for the current risks and an updated understanding of what is required to manage those risk elements.

With the DIA 3-waters stimulus funding, leak detection equipment was purchased during the 21/22 year. With this new equipment and a team of skilled operators, leak detection work initially focussed on our highest water loss area of Kaitaia. Over the late summer and autumn months, further leak detection work was undertaken at Rawene. These pieces of work were highly successful in finding leaks and enabling the repairs to take place. The results are being currently analysed to assess the impact on overall water system losses. The next area of focus will be Kerikeri. Finding and fixing leaks assists with water management within our dry months however, the long-term benefits in delaying the requirements for large capital spends on new water sources is the real prize.

Early and continued engagement with Taumata Arowai is underway to ensure all obligations are known and understood. Current topics include:

- What are Council obligations in respect of non-public schemes?
- If a private scheme starts to impact ratepayer health what is Council's responsibility?
- Submissions on the Draft Drinking Water Standards and Rules. Taumata Arowai has not yet released the summary of submissions and final standards and rules.

Council needs to determine what level of residual risk are we prepared to accept. There is uncertainty about the future ownership and management of water supply assets due to the proposed three waters reforms.

<b>Inherent Risk:</b>	<b>Trend</b>	<b>Residual Risk:</b>	<b>Accountable:</b>	CEO	<b>Date raised:</b>	March 2020	<b>Report frequency:</b>
	Stable		<b>Responsible:</b>	GM IAMs	<b>Date accepted:</b>	05/07/20	Three monthly